

FMCSA Specifications for Federal Procurements of Field Portable Computers and Peripherals

Updated: 8/3/2005 10:44:00 AM CLF

This document provides specifications for FMCSA procurements of portable computer and peripheral hardware for field use. These specifications must be followed for all FMCSA procurements that meet the definitions below. The specifications in this document are updated two-to-four times per year and upon request.

If you have any questions regarding these specifications, please contact Jeff Hall or Janet Curtis with the FMCSA Systems Development Team.

Table of Contents

FIELD LAPTOPS (Updated 04/29/2005)	2
MANAGER LAPTOPS (Updated 04/29/2005)	3
Rugged Tablet PC (Updated 06/01/2005).....	4
PORTABLE PRINTER (Updated 04/29/2005)	5
4-IN-1 MULTI-FUNCTION PRINTER (Updated 04/29/2005)	6
PORTABLE SCANNER (Updated 04/29/2005)	7
DIGITAL CAMERA (Updated 04/29/2005).....	8
PERSONAL DIGITAL ASSISTANT (PDA) (Updated 04/29/2005)	9
DIGITAL PROJECTOR (Updated 04/29/2005)	13
DC POWER ADAPTERS FOR PANASONIC (Updated 04/29/2005).....	14
LAPTOP CARRYING CASE (Updated 04/29/2005)	15
MEDIA TYPES (Updated 04/29/2005)	15

FIELD LAPTOPS (Updated 04/29/2005)

This specification will be used for procuring laptops for use in conducting Compliance Reviews, Safety Audits, and Inspections. FMCSA no longer utilizes a separate specification for Inspection laptops. This is a three spindle laptop, with integrated hard drive, CD drive, and floppy drive.

- Panasonic ToughBook 51 CF-51ABLDAKM
 - Intel® Pentium® M Processor 735 - 1.7GHz
 - 512MB SDRAM standard
 - 15" 1600 x 1200 (UXGA) TFT Active Matrix Color LCD
 - 60GB HDD (shock-mounted & easily removable)
 - 1.44MB FDD Standard (integrated)
 - DVD-ROM/CD-RW Standard
 - Electrostatic touchpad with scrolling support
 - Intel PRO/Wireless 2200BG network connection 802.11b+g
 - 56K modem (integrated) & 10/100 Ethernet card (integrated)
 - Two USB 2.0 ports & one IEEE 1394 (Firewire) port
 - 6.7 lbs, including battery, 1.9"(H) x 10.9"(D) x 12.8"(W)
 - Windows 2000 Operating System
 - 3 year warranty
 - Additional information:
ftp://ftp.panasonic.com/pub/panasonic/toughbook/specsheets/TB-51_ss.pdf



- Panasonic Accessories
 - Port Replicator CF-VEB501W
 - AC Adapter (for Port Replicator) CF-AA1653AM
- Additional Accessories
 - Super Mini Optical Mouse USB w/ PS/2 AD ACC-MS15000

Note: These specs will be revisited every quarter

MANAGER LAPTOPS (Updated 04/29/2005)

This specification is for a lightweight laptop for use primarily for e-mail, scheduling, address book information, and minimal word processing. Although the specified unit can be used for much more, the trade-off for going with a lightweight unit is a decrease in ease-of-use. If a manager feels he/she will be running CAPRI, ASPEN, CaseRite, or performing a great deal of word processing, we recommend procuring the standard SI laptop.

- Panasonic Toughbook W2 CF-W2AWAZZDM
 - CPU - Ultra Low Voltage Intel® Pentium® M Processor 900MHz
 - Weight - 2.2 lbs
 - RAM - 256 MB (SDRAM)
 - HDD - 40 GB shock mounted
 - NIC - Integrated 56k modem and 10/100 network interface card
 - Wireless – Integrated Intel® PRO/Wireless 2100 (802.11b)
 - Optical Drive - Integrated Combo DVD-ROM/CD-RW Drive
 - Display - 12.1" 1024 x 768 XGA anti-glare TFT Active Matrix LCD
 - USB - Two 2.0 ports
 - PC Card – one type II
 - Keyboard/Mouse – 85 key, Electrostatic touchpad -vertical scrolling
 - Warranty - 3 year limited, parts & labor
 - Case - Full Magnesium Alloy Case
 - OS – Windows XP
 - Additional information:
http://www.panasonic.com/computer/toughbook/learn_more_tbw2.asp



- Panasonic W2 accessories (required to make this a complete solution)
 - 256 MB RAM upgrade (512 total) CF-BAT0256U
 - AC Adapter CF-AA1623AM
- Additional Accessories
 - Optical Wheel Mouse with USB and PS/2 interface D66-00029

Rugged Tablet PC (Updated 06/01/2005)

This specification will be used for procuring laptops for use in conducting Compliance Reviews, Safety Audits, and Inspections. Although the specified unit can be used for much more, the trade-off for going with a lightweight unit is a decrease in ease-of-use.

- HP Rugged Tablet PC tr3000
 - CPU - Ultra Low Voltage Intel® Pentium® M Processor 933MHz
 - Weight – 3.7 lbs
 - RAM - 256 MB (SDRAM)
 - HDD - 40 GB shock mounted
 - NIC - Integrated 56k modem and 10/100 network interface card
 - Wireless – 802.11b
 - Display – 8.4" 1024 x 768 XGA anti-glare TFT Active Matrix LCD
 - USB - Two 2.0 ports
 - PC Card – one type II
 - Warranty - 3 year limited, parts & labor
 - Case - Rugged
 - OS – Windows XP Tablet PC Edition
 - Additional information:
<http://h18004.www1.hp.com/products/irg/tabletpc/rugged/specs.html>



- Panasonic W2 accessories (required to make this a complete solution)
 - 256 MB RAM upgrade (512 total) PE780A

PORTABLE PRINTER (Updated 04/29/2005)

This specification is to be used for both investigators and inspectors. Portable printers are procured and serviced for investigators and inspectors through the FMCSA Technical Support hotline.

- Canon i80 * 8582A001AA
 - Speed: Up to 14 ppm in black / 10 ppm in color
 - Resolution: Black – 600 x 600 dpi; Color 4800 x 1200 dpi
 - Compatibility: Windows® XP/Me/2000/98 and MAC OS (*Note: This unit is not DOS compatible)?
 - Wireless printing: Infrared port IrDA v1.1, and Bluetooth v1.1 (with optional adapter)
 - Sheet feeder: 30 sheets, integrated
 - Interfaces include USB 2.0/IrDA (Windows Only); Bluetooth; Direct Print Port (cables not included)
 - 64 KB Buffer/RAM
 - 4.0 lbs
 - Additional information:
<http://consumer.usa.canon.com/ir/controller?act=ModelDetailAct&fcateoryid=118&modelid=9786>
 - Estimated price \$249.99



- Accessories:
 - USB cable (not specific any USB cable will work)
 - LK-51 Portable Kit (includes battery & housing) \$99.99
 - Blue Tooth Adapter 9434A002 - \$79.99

* The HP 450 was determined to be too heavy for FMCSA field staff. However, it is a good printer.

4-IN-1 MULTI-FUNCTION PRINTER (Updated 04/29/2005)

This specification should be used when procuring an all-in-one device for telecommuters. This is a desktop printer, fax, and scanner. The unit specified is not portable. Cables are procured separately. 4-in-1 printers are procured and serviced locally.

- HP OfficeJet 7410
 - Color Print/Copy/Scan/Fax
 - Connectivity – USB
 - RAM – 96mb
 - Printer – Color inkjet, up to 30 ppm, 4800x1200 dpi resolution
 - Print Media – Paper (plain, inkjet, photo, banner), envelopes, transparencies, labels, cards, HP Premium Media, iron-on transfers, borderless media, panoramic media, banners
 - Fax speed– 3 seconds per page, Color, 150 page memory
 - Scanner – 2400x4800 dpi, 48 bit color
 - Copier – Up to 30 pages per minute (black and white)/20 pages per minute color
 - Weight – 31.3 .lbs
 - For additional information:
http://www.shopping.hp.com/webapp/shopping/product_detail.do?product_code=Q5569A%23ABA&tab=detailed_specs&storeName=storefronts&landing=printers&category=all_in_ones&subcat1=home_office&catLevel=3#defaultAnchor
 - Estimated street price \$595.00



PORTABLE SCANNER (Updated 04/29/2005)

This specification will be used when procuring portable scanners for use by investigators and inspectors.

- Visioneer Strobe XP 200 w/ VRS
 - Connectivity – USB
 - Resolution – 600x600 dpi
 - Scanner bit depth (color) – 48-bit
 - Weight – 10.6 oz
 - Dimensions – 11" x 2.5" x 2"
 -
 - Software includes:
 - Document management – PaperPort Deluxe 9.0
 - OCR – TextBridge Pro 9 OCR
 - Image editor – ArcSoft PhotoImpression 3.0
 - OS – Win 98SE/2000/ME/XP
 - Additional information:
<http://orders.visioneer.com/item.jsp?item=90-0488-300&category=MOBILE>
 - Estimated price \$299



DIGITAL CAMERA (Updated 08/01/2005)

This specification will be used when procuring digital cameras for use by investigators and inspectors. A digital camera is an excellent tool for documenting violations such as a cracked trailer frame.

- Canon PowerShot S70
 - Resolution – 7 Megapixel
 - Zoom – Wide Angle 3.6x optical (28-100 mm)
 - 13 shooting modes
 - Macro function
 - Body – All metal
 - Lens cover – Sliding door built into body
 - Flash – Built in
 - Battery – Lithium ion, rechargeable
 - Weight – 8.11 oz for camera body only
 - Connectivity – USB (mini-B jack)
 - Storage media – CompactFlash (CF) Type I or II
 - Software includes:
 - Drivers & Utilities
 - Canon PhotoStitch
 - Canon ZoomBrowser EX
 - ArcSoft PhotoImpression
 - ArcSoft VideoImpression
 - Canon ImageBrowser
 - Canon Remote Capture
 - PC Requirements:
 - Operating System – Windows 98, ME, 2000, XP
 - Built-in USB ports
 - CPU – Pentium 150 or faster, 300 or faster (XP)
 - RAM – 128 MB for XP, 64 MB for other OS
 - Additional information:
<http://consumer.usa.canon.com/ir/controller?act=ModelDetailAct&fcategoryid=144&modelid=10460>
 - Estimated price - \$599



- Recommended accessories for digital camera
 - Lexar CF Pro Series 512 MB 80x CompactFlash
 - Canon soft case (PSC-30)

PERSONAL DIGITAL ASSISTANT (PDA) (Updated 08/01/2005)

FMCSA has established three specifications for handheld computer devices. The first is for use by managers solely as a personal information management tool and is referred to as the “Manager PDA.” The unit is small and lightweight, but lacks expandability. The second unit is for use by field personnel in conducting enforcement activities such as driver/vehicle inspections and is referred to as the “Field Activity PDA.” This unit is somewhat larger, heavier and expensive, but is much more flexible, expandable, and has integrated wireless LAN connectivity. The third is for personnel that need a PDA with a built-in keyboard for more text entry. This is referred to as the “Expanded Manager PDA.”

Manager PDA

- HP IPAQ Pocket PC hx2110 *
 - Processor – Intel 312 MHzXscale
 - Memory - 64 MB SDRAM 64MB Flash ROM
 - Operating system – MS Windows® Mobile™ 2003 Second Edition
 - Weight – 5.8 oz
 - Dimensions – 4.71 x 3.01 x .65 in
 - Expansion slot – One SD and One CF II
 - Display – Transflective 3.5" TFT liquid crystal display with LED backlight, 64K colors 16-bit, 240 x 320 resolution
 - Input type – Pen and touch 5-way navigation button
 - External input/output ports – Bluetooth, Infrared Port (IrDA SIR), Cradle/Synch/Power Port, Audio Jack (2.5 mm)
 - Software – iPAQ Pocket PC Companion CD-ROM, Microsoft® Outlook 2002, Microsoft® ActiveSync 3.7.1, add-on software and applications, reference guide
 - Additional hardware included – USB synchronization cable, AC adapter, battery, charger adapter, 2.5mm - 3.5mm audio adapter
 - Warranty – 1 year
 - Additional information – <http://h10010.www1.hp.com/wwpc/us/en/sm/WF06b/215348-64929-215381-314903-f67-421410-421412-421398.html>
 - Price approx. \$349



* Please note the hx2110 is NOT compatible with standard IPAQ expansion sleeves. Use is limited to personal information management activities such as calendar, contact list, email, etc.

Field Activity PDA

- HP iPAQ Pocket PC hx4705
 - Security – Wireless Security
 - Wireless – IrDA, Bluetooth, IEEE 802.11b
 - Processor – Intel® 624 MHz
 - Memory – 64MB RAM 128MB Flash ROM
 - Operating System – Microsoft Windows Mobile 2003 Second Edition
 - Weight – 6.6 oz
 - Dimensions – 5.17" x 3.03" x .59"
 - Expansion slot – SD and CF slots
 - Display – 4" transfective VGA TFT display, portrait and landscape modes, LED backlight with power save mode
 - Input type – Stylus, Touch-screen
 - Software – Clock, Inbox, Notes, Tasks, Memory, Calendar, Contacts, Solitaire, WorldMate, Calculator, IPAQ Audio, Jawbreaker, VPN Client, IPAQ Backup, Align Screen, File Explorer, Voice Recorder, Volume Control, ClearType Tuner, IPAQ File Store, IPAQ Image Zone, ListPro (Trial), Infrared Beaming, Bluetooth Manager, IPAQ iTask Manager, Microsoft Pocket Word, Cadenza mNotes (Trial), Microsoft Outlook 2002, Microsoft Pocket Excel, Macromedia Flash Player, Microsoft Pocket Outlook, Terminal Services Client, Microsoft ActiveSync 3.7.1, Margi Presenter-to-Go (Trial), HP Mobile Printing for Pocket PC, Microsoft Pocket Internet Explorer, Windows Media Player 9.0 for Pocket PC
 - Additional hardware included – Docking cradle, AC adapter, stylus
 - Additional information –
http://www.shopping.hp.com/webapp/shopping/product_detail.do?product_code=FA304A%23ABA&tab=detailed_specs&storeName=storefronts&landing=&category=handhelds&subcat1=classic_performance&catLevel=2#defaultAnchor
 - Price approx. \$649



Expanded Manager PDA

- HP IPAQ Pocket PC hx4705
 - Security – Wireless Security
 - Wireless – IrDA, Bluetooth, IEEE 802.11b
 - Processor – Intel® 624 MHz
 - Memory – 64MB RAM 128MB Flash ROM
 - Operating System – Microsoft Windows Mobile 2003 Second Edition
 - Weight – 6.6 oz
 - Dimensions – 5.17" x 3.03" x .59"
 - Expansion slot – SD and CF slots
 - Display – 4" transfective VGA TFT display, portrait and landscape modes, LED backlight with power save mode
 - Input type – Stylus, Touch-screen
 - Software – Clock, Inbox, Notes, Tasks, Memory, Calendar, Contacts, Solitaire, WorldMate, Calculator, IPAQ Audio, Jawbreaker, VPN Client, IPAQ Backup, Align Screen, File Explorer, Voice Recorder, Volume Control, ClearType Tuner, IPAQ File Store, IPAQ Image Zone, ListPro (Trial), Infrared Beaming, Bluetooth Manager, IPAQ iTask Manager, Microsoft Pocket Word, Cadenza mNotes (Trial), Microsoft Outlook 2002, Microsoft Pocket Excel, Macromedia Flash Player, Microsoft Pocket Outlook, Terminal Services Client, Microsoft ActiveSync 3.7.1, Margi Presenter-to-Go (Trial), HP Mobile Printing for Pocket PC, Microsoft Pocket Internet Explorer, Windows Media Player 9.0 for Pocket PC
 - Additional hardware included – Docking cradle, AC adapter, stylus
 - Additional information –
http://www.shopping.hp.com/webapp/shopping/product_detail.do?product_code=FA304A%23ABA&tab=detailed_specs&storeName=storefronts&landing=&category=handhelds&subcat1=classic_performance&catLevel=2#defaultAnchor
 - Price approx. \$649



DIGITAL PROJECTOR (Updated 08/01/2005)

This is a recommendation only. FMCSA does not limit procurements of digital projectors to the unit listed in this specification.

- Mitsubishi XD50U MINI-MITS
 - Lumens – 1500
 - Weight – 3.4 lbs
 - Resolution – XGA (1024x768) w/ SXGA compressed (1280x1024)
 - Contrast – 1500:1
 - Zoom/Focus – Manual zoom and focus
 - Picture size – 26" – 200"
 - Computer display compatibility – XGA, SXGA, SVGA, and VGA
 - Remote – Full projector control, wireless
 - Warranty – 3 year parts and labor
 - Other – CNET Editor's Choice winner
 - Additional information –
<http://www.mitsubishi-presentations.com/html/xd50u.htm>



* NOTE: The **HP mp3130** is also an excellent choice. It displays 1800 lumens and weighs 3.8 lbs. This unit stands on edge, placing the lens higher giving it a smaller footprint. However, the vertical position may make it more prone to falling over.

* NOTE 2: **Interlink Electronics Point Navigator Wireless Remote Control** is an excellent wireless remote for use with presentations. Adapter attaches to USB port and does not require additional software.



DC POWER ADAPTERS FOR PANASONIC (Updated 04/29/2005)

This specification will be used when procuring a DC power adaptor for Panasonic CF-48, 50, CF-72, and W2 laptop computers. This adapter will operate the laptop and charge the battery in an automobile.

- Lind 80 Watt Adapter for Panasonic laptop computers PA1555-655
 - Compatibility – CF18, CF29, CF48, CF50, CF72, CF73 & W2
 - Weight – 13 oz
 - Input Voltage – 11 to 16 Vdc
 - Input Noise Filter
 - Output Voltage 15.6 Vdc
 - Output Current 5.5 amps (max)
 - Connector MP205 R/A
 - Auto Input Cable 18 Inches
 - Output Cable 36 Inches
 - Internal Overtemperature Shut Down
 - Low Input Voltage Shut Down
 - High Input Voltage Shutdown
 - Automatic Shut Down Reset
 - Warranty – 3 year, covers electronics, cables and connectors
 - Additional information:
http://www.lindelectronics.com/cgi-bin/Store7/PerlShop.cgi!/ORDERID!/aaa/PA1555-655/dbx_gen_detail_product



- Price appox. \$100

* Please note this adapter can not be used in the airline in-seat power systems. The air in-seat power systems are limited to an output of only 75 Watts.

LAPTOP CARRYING CASE (Updated 04/29/2005)

Model unspecified, but should, at minimum, accommodate laptop, printer, and all accessories. Suggested manufacturers, include Tenba and Targus. Styles to consider include wheeled, over the shoulder portfolio, and backpack. Models to consider include:

Targus – Top-loading Air Universal	(\$ 99)
Targus – Port 3.1 Easyroller Case	(\$149)
Tenba – Tenba Computer Traveler	(\$170)

MEDIA TYPES (Updated 08/01/2005)

Recommended media types (floppy disk is no longer recommended, but continue to be serviceable):

- CD-RW – Re-writable CD format, 700 MB capacity.
- CD-R – Write-once CD format, 650 MB capacity.
- USB Flash Drives – Solid state drive, nonvolatile Compact Flash memory, plugs into USB port, Re-writable, recommended capacity 256 MB or higher. These drives may be used with any Windows 2000/XP computer with a USB 1 or 2 drive. The recommended flash drive is SanDisk 256 MB Cruzer.
- SD card – Secure Digital card, solid state nonvolatile flash memory, high data transfer rate and low battery consumption, recommended capacity 1 GB. An SD card is about the size of a postage stamp and weighs approximately two grams. The SD card is used by the HP IPAQ PDA for removable data storage. The recommended SD Card is SanDisk 1GB Ultra II.
- Compact Flash II card – CF cards are nonvolatile solid state flash memory cards approximately the size of a matchbook. Recommended capacity 1 GB. CF cards are used by the Canon S45 digital camera for removable storage. The recommended CF card is the SanDisk 1GB CompactFlash.
- DVD-RW + -Re-writable DVD format, 4.7 GB capacity.
- Mini CD-R – Ritek RiData Mini CD-R, 210 MB capacity.